

# AVCOM



*Satellite Receivers for All Your Needs*

**AVCOM<sup>®</sup>** 500 Research Road • Richmond, VA 23236 • 804-794-2500



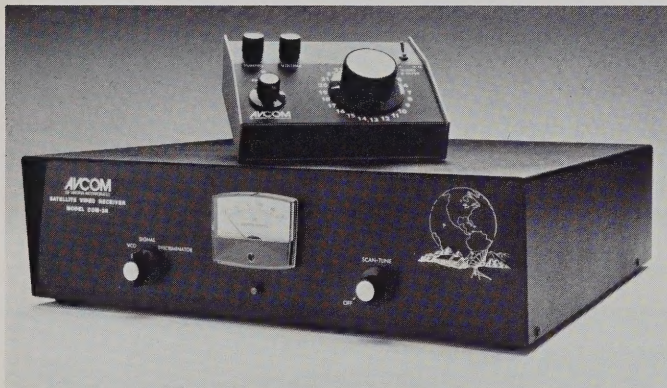




# AVCOM COM-3 & COM-3R

## STANDARD FEATURES

- \* Tunable audio (4 to 8 MHz) with wide and narrow IF bandwidth
- \* Sensitive signal strength meter
- \* 24 position switch selectable tuning
- \* Handsome, hand-etched front panel
- \* Remote control capability
- \* Excellent threshold sensitivity
- \* Attractive styling
- \* Dual video outputs
- \* Switchable video polarity
- \* Scan-tune circuitry sweeps the satellite band. Helps you find the birds fast!
- \* Exclusive clamp-sync circuitry suppresses sparklie caused streaks
- \* Includes internal D C powerblock
- \* LNA powered from within the receiver



### COM-3R

Armchair convenience. Comprehensive remote control capability for ease of operation.



### COM-3

Detented tuning located on front panel of receiver.

AVCOM recognizes the importance of an effective maintenance support structure. The AVCOM receivers have been designed using modular construction to facilitate rapid repair on an exchange basis. The reliability of the AVCOM receivers is outstanding. AVCOM is sensitive to the criticality of your earth station installation and places service to the customer ahead of production.

# COM-2 SATELLITE RECEIVER

Features Hideaway Electronic Chassis - Only your comprehensive remote control needs to be seen. The COM-2 includes tunable audio with wide and narrow IF switch, scantune, sensitive signal strength meter, and provision for an internal crystal controlled modulator. Includes remote downconverter.



## FEATURES OF AVCOM RECEIVERS

### SIGNAL STRENGTH METER

AVCOM Receivers are equipped with a high performance signal strength meter which will allow antenna peaking to better than 1/10 of a dB. A jack is provided on the rear panel for connecting an external meter for use at the antenna. Applications include using the signal strength meter to precisely position the satellite antenna, locate the optimum position for the feedhorn at the focal point, and to make accurate antenna and LNA comparisons.

### SCAN TUNE

The Scan-Tune feature automatically sweeps the 3.7 to 4.2 GHz satellite band for automatic signal detection. This capability is very useful for quickly finding satellites when aligning your antenna.

### WIDE AND NARROW AUDIO IF FILTER

Another unique feature is wide and narrow IF bandwidth switching capability. Wide IF bandwidth is for standard audio transmissions. The narrow bandwidth setting allows clear reception of the special audio channels on certain transponders. The tunable audio board can be wired for 600 ohm balanced output, compatible with broadcast equipment. The tuning range is 4.5 to 8 MHz.

### The Big Question ... Which AVCOM?

Check with us. Different needs require different receivers. So let us know what you need, then we can recommend the AVCOM that's best for you.

AVCOM will make custom modifications on equipment you order to give you maximum performance and to allow for special applications.



# AVCOM BLOCK DOWNCONVERTER SYSTEM

For Cost-Effective Multi-Channel Installations

## COM-65(T) COM-66(T) & BDC-60

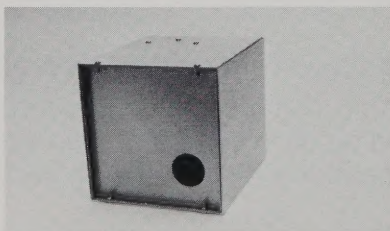
- \* Commercial Quality
- \* Double Conversion
- \* High Stability
- \* Compatible with SA's 6650 system
- \* Flexible Downconverter allows use of any degree & brand LNA
- \* Rack Mount, standard
- \* No Isolators needed
- \* Available with Tunable Audio with wide and narrow IF filters (specify "T" suffix) or Standard 6.2 & 6.8 MHz.



The **COM-66** and **COM-66(T)** feature a detented channel selector. This block downconverter system is commercial quality with double conversion and high stability. The flexible downconverter allows use of any degree and brand LNA. Rack mount is standard.



AVCOM'S **COM-65** and **COM-65(T)** Semi-Agile Receivers use a unique group card channel selector. The block downconverter system is commercial quality with double conversion and high stability. Rack mount is standard. Ideal for cost-effective multi-channel installations.



**BDC-60**

AVCOM'S **BDC-60** Block Downconverter is used with the COM-65 and COM-66 satellite receivers. The BDC-60 converts the 3.7 to 4.2 GHz signal from any low noise amplifier to a 270-770 MHz block of frequencies. Includes built-in DC power block.

# AVCOM QUALITY CONVENIENCE ECONOMY

## COM-11

## COM-12

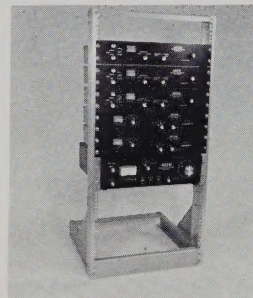
- \* Remote Downconverter
- \* Scantune, AFC & Signal Strength Meter
- \* Tunable Audio Board
- \* Rack Mount
- \* Single Conversion



AVCOM'S **COM-12** Satellite Receiver features rack mounting, internal or remote single conversion down-converter, scantune, signal strength meter, and tunable audio with wide and narrow IF bandwidth switch. Detented 24 position channel selector is standard.



The **COM-11** Satellite Receiver features rack mounting, internal or remote single conversion down-converter, scantune, signal strength meter and tunable audio with wide and narrow IF bandwidth switch. Recessed, single control channel selector is available to prevent unauthorized tuning.



**AVRACK** — Provides over 36" of rack space for your receiving equipment. Durable construction with replaceable threaded inserts. Open in rear for maximum ease of cabling and equipment adjustment.

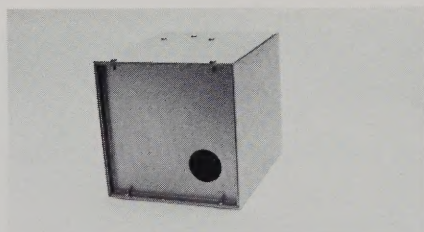


# SPECIAL HALF-TRANSPONDER RECEIVERS FOR INTERNATIONAL TYPE SATELLITE TRANSMISSIONS

AVCOM COM-3 and COM-3R and 60 series receivers can be ordered with options to receive half-transponder format signals (Intelsat type).

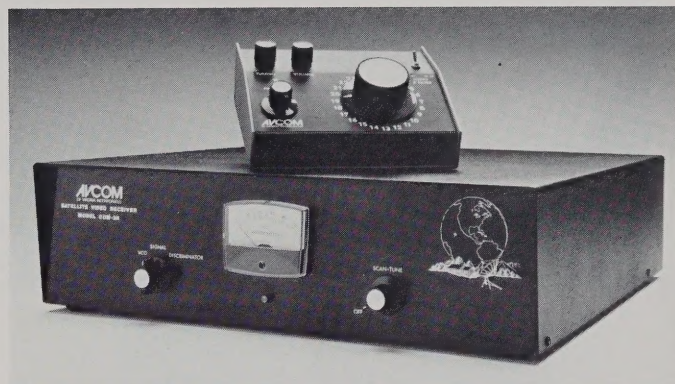


COM 66T



BDC-60

AVCOM will make custom modifications on equipment you order to give you maximum performance and to allow for special applications.



COM-3R

**These options are: Full and 1/2 transponder selection** (dual IF electronically switched), and **threshold peaking**.

## DUAL IF

Dual IF allows you to receive Intelsat type signals as well as standard US and Canadian domestic satellites.

## THRESHOLD PEAKING

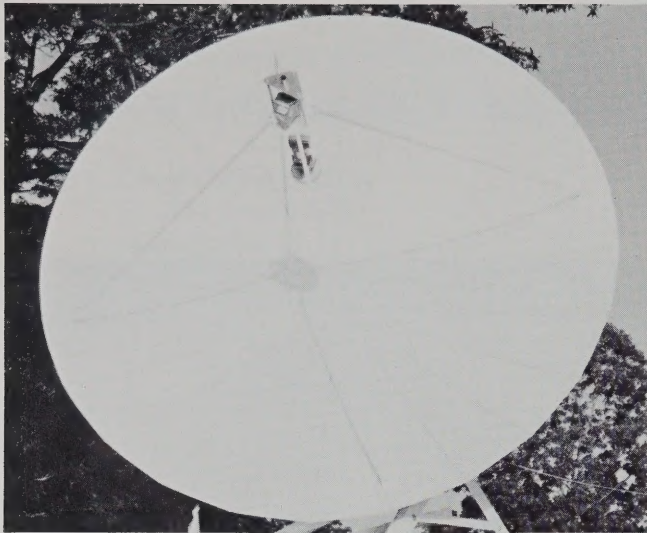
Threshold peaking greatly enhances threshold performance on weak half-transponder format signals.

# AVCOM®

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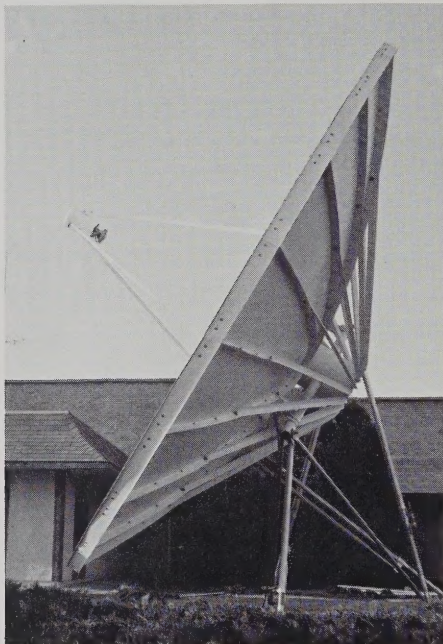
# AVCOM HAS YOUR ANTENNAS!



## 11 FT. ANTENNA BY ADM

A **SUPER TVRO ANTENNA SYSTEM.** High quality panelized aluminum 11 foot dish and steel polar mount. Dish weighs approximately 200 pounds, mount 265 pounds. Precision designed, easy installation, zinc chromate base primed and heavy duty white surface finish.

The basic ADM-11 Antenna comes with polar mount, Polarotor II and LNA bracket. Optional accessories are the remote control antenna drive and extension panels to enlarge the dish diameter to 13' for increased gain. Also available with Polarotor I, Chaparral dual feed, or Chaparral single feed.



## ADM 16 FT. ANTENNA

Antenna Type: Prime Focus

Antenna Mount: Equatorial Polar

Feed: Single Linear or Dual Orthogonal  
Linear Polarization, Rotatable 360°

Frequency: 3.70 - 4.20 GHz

Gain: 44.1 dB at 4.0 GHz

Remote control antenna drive, optional



## ADM 20 FT. ANTENNA

Antenna Type: Prime Focus

Antenna Mount: Equatorial Polar

Feed: Single Linear or Dual Orthogonal  
Linear Polarization, Rotatable 360°

Frequency: 3.70 - 4.20 GHz

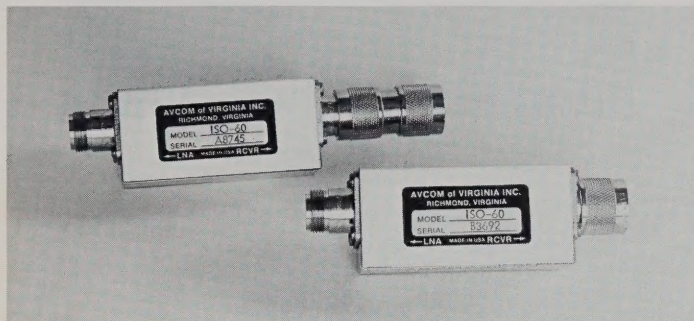
Gain: 46.3 dB at 4.0 GHz

Remote control antenna drive, optional



# AVCOM ACCESSORIES FOR TVRO'S

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## FERRITE ISOLATORS

60 dB of isolation effectively prevents interaction between single conversion receivers.

Specifications:

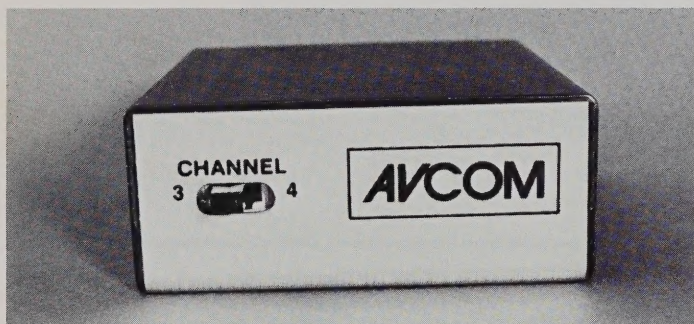
3.7 - 4.2 GHz Bandwidth

Frequency Response .....  $\pm$  -.25 dB

Insertion loss less than ..... .9 dB

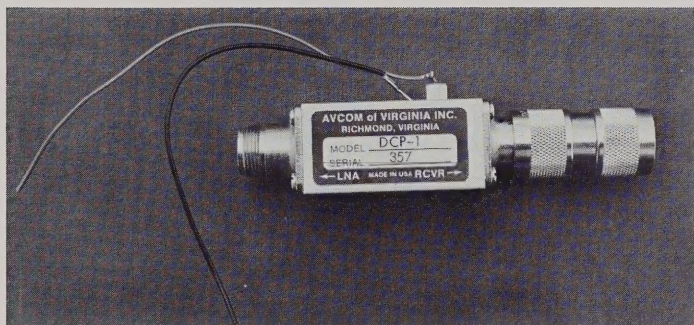
Isolation greater than ..... 60 dB

Choice of two connector configurations



## RF MODULATOR

Crystal controlled on VHF channels 3 & 4. A high quality low cost modulator with RCA phono connectors for audio and video and a type "F" for RF out. Separate plug-in power supply included. Also available without case for installation inside receivers.



## DC POWER BLOCKS

(Model DCP - I)

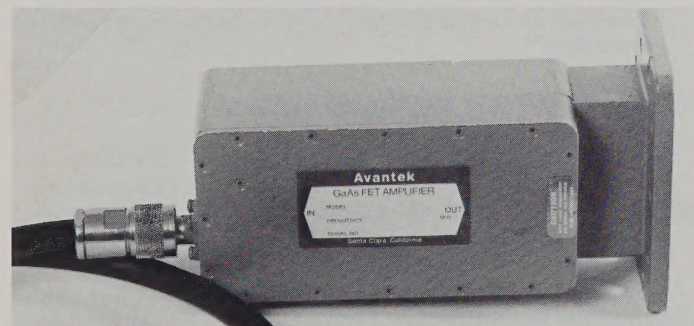
Specifications:

Connectors - Type N female  
(male - male barrel included)

Input voltage - 100 VDC max.

Input current - 250 ma. max.

Insertion loss - .35 dB typ.



## LOW NOISE AMPLIFIER

by AVANTEK

120° K and lower noise figures available

Powered via the feedline

No DC cable necessary

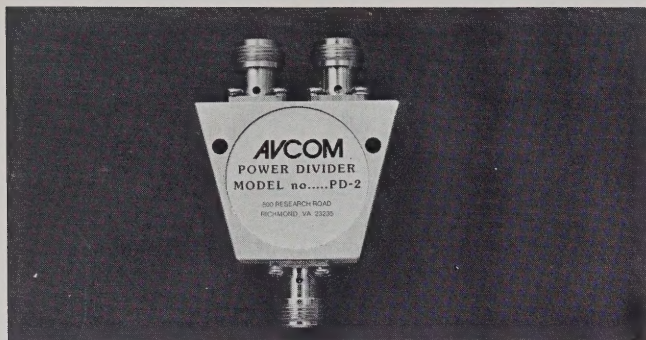
Rugged cast aluminum housing

Supplied with test data

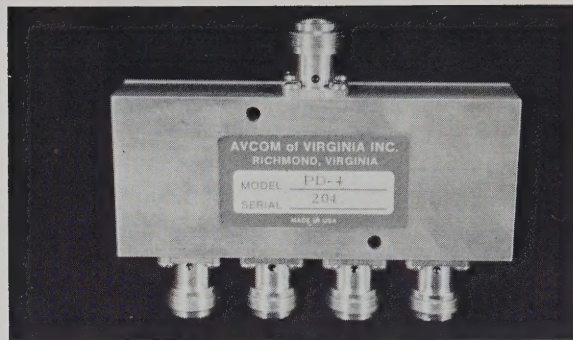
Sealed waveguide and weather-proof case



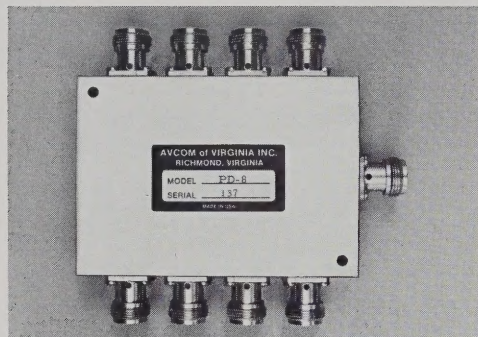
# POWER DIVIDERS



(MODEL PD - 2)



(MODEL PD - 4)



(MODEL PD - 8)

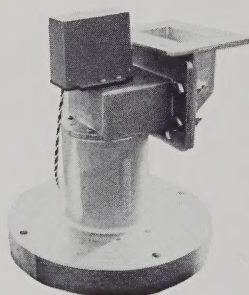
3.7 - 4.2 GHz

50 Ohm impedance

For Satellite - T.V.R.O. Multi-Receiver Application

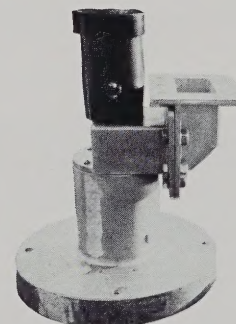
## Specifications:

Isolation .....	25 dB typ.
VSWR .....	1.20:1
Insertion loss .....	.25 dB typ.



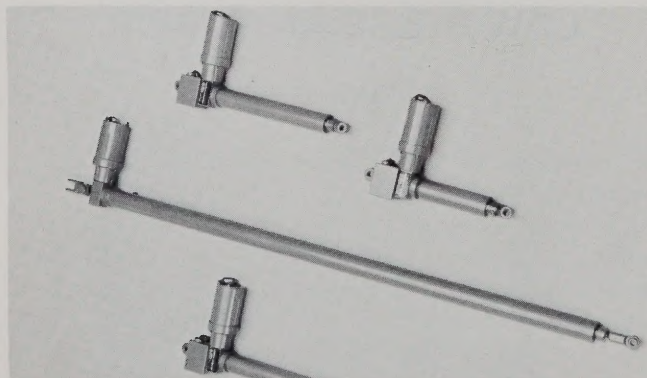
## POLAROTOR I

A high performance feedhorn with a servo operated polarization control. Polarization can be varied by remote control with the control box and power supply included. Avcom receivers can be ordered with integral control and wiring for the Polarotor I.



## POLAROTOR II

A high performance feedhorn with a reversible motor to change polarization by remote control. A special polarization toggle switch provides dynamic braking and includes attached terminal clips for a 9 volt transistor battery. Battery life approaches shelf life under normal usage. Avcom receivers can be supplied with provisions for the Polarotor II in the receiver or remote control unit.



## ACTUATORS

AVCOM has actuators available for most residential or commercial parabolic antenna applications. The actuators come in either 110 volt AC or 12 volt DC models with standard stroke lengths of 18, 24, 36, or 52 inches and are rated with lifting capacities of 500 lbs. for residential or 1,500 lbs. for commercial. Mounting bracket kits and manual or microprocessor remote control units are also available.

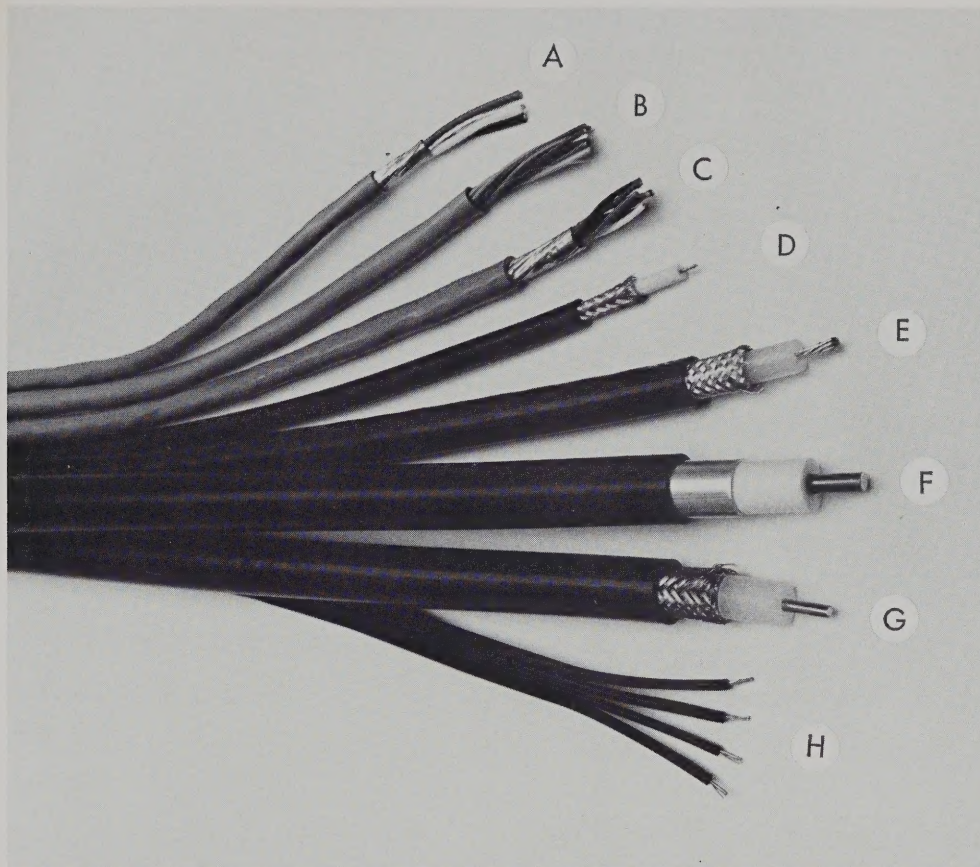


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## AVCOM'S ANSWER TO YOUR TVRO FEEDLINE REQUIREMENTS



- A. 3 Conductor 18 ga. shielded gray vinyl jacket control cable. Used to power and tune downconverter and LNA.
- B. 8 Conductor 22 ga. gray vinyl jacket control cable. Used for remote control extension.
- C. 10 Conductor 22 ga. shielded beige vinyl control cable.
- D. RG-59/U 75 Ohm coax. Foam insulation, black vinyl. To connect downconverter signal to receiver.
- E. RG-214 Double shielded 50 Ohm coax. Medium loss at 4 GHz. Primarily used for pigtails and short feed lines.
- F. 1/2 inch 50 Ohm foam filled Hardline Coax. Low loss coax for GHz feedline between LNA and down-converter. Used for long cable runs.
- G. RG-217 50 Ohm double shielded lower loss coax. Used between LNA and downconverter. For medium length cable runs.
- H. 4 Conductor 20 ga. rotor cable. Flat black, polyethylene insulated.

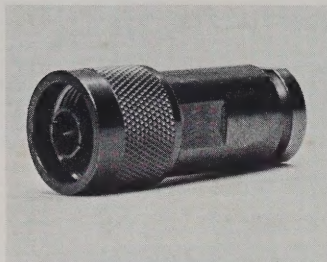


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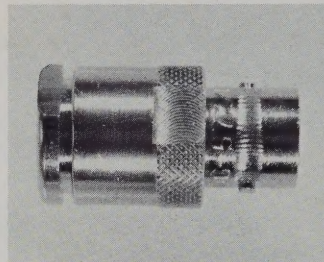


# COAXIAL CONNECTORS



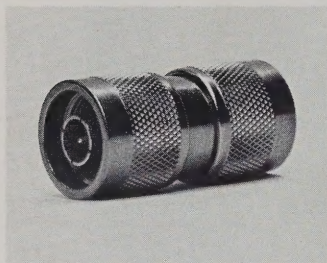
UG-21 B/U

Type N - Male. 50 Ohm impedance. Teflon insulation. For RG-214 cable.



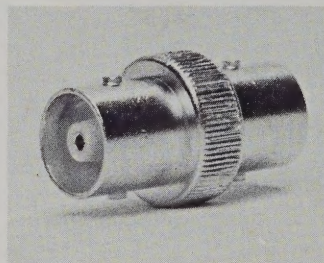
UG-572/U

Type C - Female. Teflon insulation. 50 Ohm impedance. "Quick connect." For RG-214



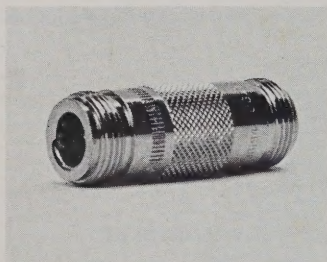
UG-57 B/U

Type N - Male to Male straight adapter. Inside thread. Teflon insulation. 50 Ohm impedance.



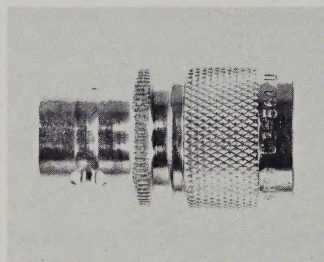
UG-643/U

Type C - Female to Female Straight adapter. Teflon insulation. 50 Ohm impedance.



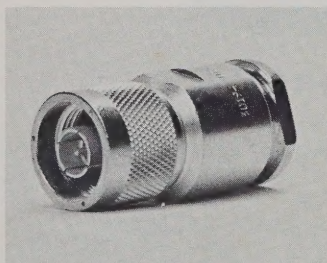
UG-29 B/U

Type N - Female to Female straight adapter. Outside thread. Teflon Insulation. 50 Ohm impedance.



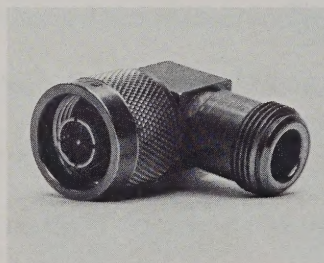
UG-564 Adapter

Type N Plug to Type C jack. Teflon insulation. 50 Ohm impedance.



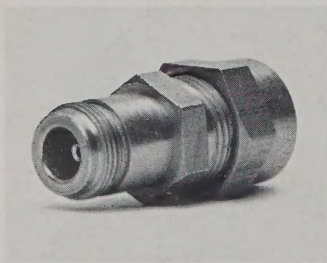
UG-204 C/U

Type N - Male. 50 Ohm impedance. Teflon insulation. For RG-217 cable.



UG-27 C/U Right Angle

Type N - Teflon insulation. 50 Ohm impedance.



Hardline Connector

Female type N - Quick-tite connector for hard-line. Mates with UG-21 B/U and similar connectors.



UG-707 A/U

Type C - Male. Straight plug. 50 Ohm impedance. For RG 217 cable.



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